WHAT IS CLAIMED IS:

1. A method of inducing an immune response to a pathogen comprising administering to epidermal cells of a recipient total pathogen cell RNA in an amount effective to elicit an immune response against the pathogen.

2. The method of claim 1 wherein the total cell RNA is administered to the epidermal cells *in vitro*.

3. The method of claim 2 wherein the epidermal cells are modified by pulsing the cells with the total RNA.

4. The method of claim 1 wherein the total cell RNA is administered directly into the epidermal cells of the recipient *in vivo*.

5. The method of claim 1, wherein the pathogen is a tumor.

6. The method of claim 5, wherein the tumor is a fibrosarcoma tumor.

7. The method of claim 1, wherein the immune response reduces or inhibit growth of the pathogen.

8. A pharmaceutical composition comprising total pathogen cell RNA and a pharmaceutical carrier, which pharmaceutical carrier is suitable for *in vivo* delivery to a human.

9. The composition of claim 8, wherein the pathogen is a tumor.

10. The composition of claim 9, wherein the tumor is a fibrosarcoma tumor.

11. A method for protecting a subject from a cancer which method comprises delivering an immunologically effective amount of total tumor cell RNA to the subject, wherein the tumor cell is of the type associated with the cancer.

12. The method of claim 11, further comprising delivering an immunostimulatory amount of an immune activating or inflammatory cytokine to the subject.

13. A vaccine comprising a pathogen total cell RNA and an adjuvant acceptable for use in a human.

14. The vaccine of claim 13, wherein the pathogen is a tumor.

15. The vaccine of claim 14, wherein the tumor is a fibrosarcoma tumor.

16. A method of inducing immune tolerance to an antigen, which method comprises administering antigen RNA in an amount effective to elicit immune tolerance against the antigen through a tolerization route of administration.

17. The method of claim 16, wherein the RNA is total cellular RNA from tissues containing the antigen.

18. The method of claim 16, wherein the RNA is total cellular mRNA from tissues containing the antigen.

19. The method of claim 16, wherein the RNA is mRNA encoding the antigen.

20. The method of claim 16, wherein the RNA is administered intravenously, orally, or intranasally.

21. The method of claim 16, wherein the antigen is an autoantigen.

22. The method of claim 16, wherein the antigen is an allergen.

23. The method of claim 16, wherein the antigen is a transplant antigen.

24. A pharmaceutical composition comprising antigen RNA and a pharmaceutical carrier, which pharmaceutical carrier is suitable for *in vivo* delivery to a human.

25. The composition of claim 24, wherein the antigen is an autoantigen.

26. The composition of claim 24, wherein the antigen is an allergen.

27. The composition of claim 24, wherein the antigen is a transplant antigen.

28. The composition of claim 24, wherein the RNA is total cellular RNA from tissues containing the antigen.

29. The composition of claim 24, wherein the RNA is total cellular mRNA from tissues containing the antigen.

30. The composition of claim 24, wherein the RNA is mRNA encoding the antigen.